

1 TITLE: PEACH TREE NAMED: 'SUPER LADY'

2 NAMES AND ADDRESSES OF INVENTORS:

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9 CITIZENSHIP: All inventors are citizens of the United States  
10 of America.

11 BACKGROUND OF THE VARIETY:

12 FIELD OF THE INVENTION

13 In the field of plant genetics, we conduct an extensive  
14 and continuing plant-breeding program including the  
15 organization and asexual reproduction of orchard trees, and  
16 of which plums, peaches, nectarines, apricots, cherries and  
17 interspecifics are exemplary. It was against this background  
18 of our activities that the present variety of peach tree was  
19 originated and asexually reproduced by us in our experimental  
20 orchard located near Modesto, Stanislaus County, California.

21 PRIOR VARIETIES: Among the existing varieties of nectarine  
22 and peaches, which are known to us, and mentioned herein,  
23 'Earlirich' Peach (U.S. Plant Patent #9002), 'Super Rich'  
24 Peach (U.S. Plant Patent #9860), 'Ruby Gold' Nectarine (U.S.  
25 Plant Patent #3101), 'Fayette' Peach (non-patented) and  
26 'Desert Gold' Peach (non-patented).

27 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND

28 DEVELOPMENT: Not applicable.

1 ORIGIN OF THE VARIETY: The new variety of peach tree (*Prunus*  
2 *persica*) was originated by us in our experimental orchard  
3 located near Modesto, California from a first generation  
4 cross between two proprietary seedlings with field  
5 identification numbers 171LE615 and 54Z432. The maternal  
6 parent (171LE615) was originated by us from a cross between  
7 the following varieties; 'Earlirich' Peach (U.S. Plant Patent  
8 #9002) and 'Super Rich' Peach (U.S. Plant Patent #9860). The  
9 paternal parent (54Z432) originated from crosses between the  
10 following varieties; 'Fayette' Peach (non-patented), 'Ruby  
11 Gold' Nectarine (U.S. Plant Patent #3101) and the proprietary  
12 numbered selection (64EF214). A large number of seedlings  
13 from this first generation cross were budded to older trees  
14 of 'Nemagaurd' Rootstock (non-patented), to accelerate rapid  
15 fruit production for evaluation. Under careful and close  
16 observation, one such budded seedling exhibited desirable  
17 fruit characteristics in the early maturity season and was  
18 selected in 2001 for additional asexual propagation and  
19 commercialization.

20

21 ASEXUAL REPRODUCTION OF THE VARIETY: Asexual reproduction of  
22 the new and distinct variety of peach tree was by budding to  
23 'Nemagaurd' Rootstock (non-patented), as performed by us in  
24 our experimental orchard located near Modesto, California,  
25 and shows that reproductions run true to the original tree  
26 and all characteristics of the tree and its fruit are  
27 established and transmitted through succeeding asexual  
28 propagations.

1 SUMMARY OF THE NEW VARIETY: The new variety of peach is of  
2 large size, vigorous, upright growth and a productive and  
3 regular bearer of medium to large size, firm, yellow flesh,  
4 clingstone fruit with good flavor and eating quality. The  
5 fruit is further characterized by ripening in the early  
6 maturity season, having an attractive orange-red blush  
7 covering a rich, yellow skin color, and being relatively  
8 uniform in size throughout the tree. The tree is  
9 characterized by having a relatively low winter chilling  
10 requirement of approximately 350 hours at or below 45°F. In  
11 comparison to the low chilling variety 'Desert Gold' Peach  
12 (non-patented), the fruit is larger in size, has firmer flesh  
13 and is approximately 3 weeks earlier in maturity. In  
14 comparison to 'Super Rich' Peach (U.S. Plant Patent #9860)  
15 the fruit of the new variety is 1 week earlier in maturity  
16 and the tree requires approximately 350 hours less winter  
17 chilling at or below 45°F.

18

19 PHOTOGRAPH OF THE VARIETY: The accompanying color  
20 photographic illustration shows typical specimens of the  
21 foliage and fruit of the present new peach variety. The  
22 illustration shows the upper and lower surface of the leaves,  
23 an exterior and sectional view of a fruit divided in its  
24 suture plane to show flesh color, pit cavity and the stone  
25 remaining in place. The photographic illustration was taken  
26 shortly after being picked (shipping ripe) and the colors are  
27 as nearly true as is reasonably possible in a color  
28 representation of this type.

1 DESCRIPTION OF THE VARIETY: The following is a detailed  
2 botanical description of the new variety of peach tree, its  
3 flowers, foliage and fruit, as based on observations of 5  
4 year old specimens grown near Modesto, California, with color  
5 in accordance with Munsell Book of Color.

6 TREE

7 Size:

8 Large, normal for most low  
9 chill peach varieties.  
10 Pruned in height at maturity to  
11 3 to 3 1/2 meters for  
12 economical harvesting of  
13 fruit.

14 Vigor:

15 Vigorous, tree growth of 1.5 to  
16 2 meters the first growing  
17 season. Varies with  
18 fertility, type of soil and  
19 cultural practices.

20 Form:

21 Upright, usually pruned to vase  
22 shape to allow more sunlight  
23 and air movement to center  
24 of tree.

25 Branching Habit:

26 Upright, crotch angle  
27 approximately 30°, increases  
28 with heavy crop load.

29 Productivity:

30 Productive, normal fruit  
31 thinning and spacing  
32 necessary for desired  
33 marketable fruit. Fruit set  
34 varies with climatic  
35 conditions during bloom  
36 period.

37 Bearer:

38 Regular, adequate fruit set 3  
39 consecutive years.  
40 No alternate bearing observed.

41 Fertility:

42 Self-fertile.

1                   Density:

2                   Medium dense, pruned to vase  
3                   shape by opening center of  
4                   tree which enhances fruit  
5                   color and keeps fruit wood  
6                   healthy.

7                   Hardiness:

8                   Hardy in all stone fruit  
9                   growing areas of California.  
10                  Winter chilling approximately  
11                  350 hours at or below 45°F.

12                  TRUNK

13                  Size:

14                  Medium.  
15                  Average circumference 47.5 cm  
16                  at 20.0 cm above ground on a  
17                  5 year old tree.

18                  Stocky:

19                  Medium.

20                  Texture:

21                  Medium shaggy, becomes rougher  
22                  with age.

23                  Color:

24                  Varies from 2.5Y 7/2 to 2.5Y  
25                  5/2.

26                  BRANCHES

27                  Size:

28                  Medium.  
29                  Average circumference 13.0 cm  
30                  at 1.5 m above ground.

31                  Surface Texture:

32                  New growth relatively smooth,  
33                  becoming rougher with age.  
34                  Old growth medium rough.

35                  Lenticels:

36                  Average number 44 in a 25.8  
37                  square cm area.  
38                  Average length 5.1 mm.  
39                  Average width 1.4 mm.  
40                  Color varies from 2.5YR 6/8 to  
41                  5YR 5/8.

1 Color:

2 New growth varies from 2.5GY  
3 6/6 to 2.5GY 5/8.  
Old growth varies from 5YR 4/6  
to 5YR 3/6.

4 LEAVES

5 Size:

6 Large.  
7 Average length 147.5 mm.  
8 Average width 30.9 mm.

9 Form:

10 Lanceolate.

11 Apex:

12 Acuminate.

13 Base:

14 Cuneate.

15 Margin:

16 Crenate.

17 Thickness:

18 Medium.

19 Surface Texture:

20 Upper surface relatively  
smooth, slightly indented  
over midrib and leaf veins.  
Lower surface relatively  
smooth, small ridges created  
by midrib and pinnate  
venation.  
Both surfaces glabrous.

21 Petiole:

22 Medium.  
Average length 9.2 mm.  
Average width 1.4 mm.  
Color varies from 5GY 7/6 to  
5GY 6/6.  
Longitudinally grooved, surface  
glabrous.

23 Glands:

24 Globose.  
Small.  
Average length 0.6 mm.  
Average diameter 0.4 mm.  
Average number 2, varies from 1  
to 2.

Located primarily on base of leaf blade, some on upper portion of petiole.  
Color 2.5GY 5/6.

Color:

Upper surface varies from 5GY  
4/6 to 5GY 3/6.  
Lower surface varies from 5GY  
5/4 to 5GY 5/6.  
Midvein color 5GY 7/6.

## FLOWER BUDS

Size:

Large.  
Average length 19.3 mm.  
Average width 10.8 mm.

### Hardiness:

Hardy in all stone fruit  
growing areas of California.

### Form:

Conical, becoming elongated before opening.

### Pedicel:

Medium.  
Average length 5.3 mm.  
Average width 1.1 mm.  
Color 2.5GY 7/8.

Color:

Varies from 5RP 7/10 to 5RP  
7/8, varies with age of bud.

## FLOWERS

Size:

Large, showy.  
Average height 18.3 mm.  
Average diameter 32.2 mm.

Petals:

Number 5, alternately arranged  
to sepals.  
Large.  
Average length 20.1 mm.  
Average width 19.6 mm.  
Shape - orbicular.  
Margin - sinuate, slightly  
cupped.

1 Color varies from 5RP 8/6 to  
2 5RP 7/8.

3 Sepals:

4 Number 5, alternately arranged  
5 to petals.  
6 Shape - ovate, apex rounded.  
7 Average length 6.5 mm.  
8 Average width 4.5 mm.  
9 Color - upper surface varies  
10 from 2.5GY 6/6 to 5RP 6/8.  
11 Lower surface varies from  
12 7.5RP 3/6 to 7.5RP 3/8.  
13 Upper surface glabrous, lower  
14 surface pubescent.

15 Stamens:

16 Average number per flower 41.  
17 Average filament length 14.4  
18 mm.  
19 Filament color varies from N  
20 9.5/ to 2.5RP 9/2 as flowers  
21 age.  
22 Anther color varies from 10R  
23 5/8 to 10R 5/10.

24 Pollen:

25 Self-fertile.  
26 Color - 2.5Y 7/12.

27 Pistil:

28 Usually 1, varies from 1 to 2.  
29 Surface - pubescent.  
30 Average length 17.8 mm.  
31 Average height compared to  
32 stamens, 0.7 mm higher.  
33 Color 2.5GY 9/4.

34 Fragrance:

35 Very slight.

36 Blooming Period:

37 Date of first bloom  
38 February 19, 2003.  
39 Date of petal fall  
40 February 27, 2003.  
41 Varies slightly with climatic  
42 conditions.

43 Color:

44 5RP 8/6, fades as flowers  
45 mature.

46 Number Flowers per Flower Bud:

47 One.

1 Pedicel:

2 Medium size.  
3 Average length 5.3 mm.  
4 Average width 1.3 mm.  
5 Color 2.5GY 7/6.

FRUIT

6 Maturity When Described:  
7 Firm ripe.

8 Date of First Picking:  
9 May 5, 2003.

10 Date of Last Picking:  
11 May 9, 2003.  
12 Varies slightly with climatic  
13 conditions.

14 Size:

15 Medium to large.  
16 Average diameter axially 57.1  
17 mm.  
18 Average transversely in suture  
19 plane 63.0 mm.  
20 Average weight 125.0 grams,  
21 average weight varies  
22 slightly with fertility of  
23 the soil, amount of thinning  
24 and climatic conditions.

25 Form:

26 Globose.

27 Suture:

28 Very shallow, extends from base  
29 to apex.

30 Ventral Surface:

31 Nearly smooth, very slightly  
32 lipped.

33 Apex:

34 Nearly rounded, varies from  
35 rounded to slightly retuse.

36 Base:

37 Retuse.

38 Cavity:

39 Rounded to slightly elongated  
40 in suture plane.  
41 Average depth 3.5 mm.  
42 Average breadth 12.8 mm.

1  
2 STEM  
3

4 Size:  
5

Medium.  
Average length 7.9 mm.  
Average diameter 3.2 mm.

6 Color:  
7

Varies from 2.5GY 6/8 to 5GY  
6/6.

8 FLESH  
9

10 Ripens: Evenly.  
11

12 Texture: Firm.  
13

14 Fibers: Few, small, tender.  
15

16 Firmness: Firm, has greater firmness than  
17 'Desert Gold' Peach (non-  
18 patented).  
19

20 Aroma: Moderate.  
21

22 Amygdalin: Undetected.  
23

24 Eating Quality: Good.  
25

26 Flavor: Good, with a good balance  
27 between acid and sugar.  
28

Juice: Moderate.  
Brix:

Average 9.5°, varies slightly  
with amount of fruit per  
tree and climatic  
conditions.

Color: Varies from 2.5Y 8.5/10 to 5Y  
8/8.

1 Pit cavity varies from 2.5Y  
2 8/10 to 2.5Y 7/12.

3 SKIN

4 Thickness: Medium.

5 Surface: Smooth.

6 Pubescence: Moderate amount, short.

7 Tendency to Crack: None.

8 Color: Ground color varies from 10YR  
9 7/10 to 2.5Y 8/8.  
10 Approximately 55% overspread  
11 with 5R 4/8 to 7.5R 4/8.

12 Tenacity: Tenacious to the flesh.

13 Astringency: None.

14 STONE

15 Type: Clingstone.

16 Size: Medium to large.  
17 Average length 31.7 mm.  
18 Average width 20.5 mm.  
19 Average thickness 17.4 mm.

20 Form: Ovoid.

21 Base: Flat.

22 Apex: Pointed.  
23 Average length 1.5 mm.

24 Surface: Pitted throughout, pit cavities  
25 vary from round to slightly  
26 elongated. Furrows creating

1 ridges toward apex on upper  
2 portion of stone.

3 Sides: Unequal, one side slightly  
4 larger, extending further  
5 from suture plane.

6 Ridges: Relatively smooth.

7 Tendency to Split: Very slight.

8 Color: Varies from 10YR 7/4 to 10YR  
9 6/6 when dry.

## 11 KERNEL

12 Form: Ovoid.

13 Taste: Bitter.

14 Viability: Non-viable, incomplete embryo.

15 Size: Medium.  
16 Average length 12.2 mm.  
17 Average width 10.5 mm.  
18 Average thickness 5.0 mm.

19 Skin Color: 5Y 9/2 when dry.

## 21 USE

22 Dessert.  
23 Market - local and long distance.

## 24 KEEPING QUALITY

25 Good, held firm in cold storage 2 weeks  
26 at 38° to 42°F without  
27 internal breakdown or  
28 appreciable loss of flavor.

## SHIPPING QUALITY

1 Good, minimal skin scarring or bruising  
2 of flesh during picking and  
3 packing trials.

4 PLANT/FRUIT DISEASE RESISTANCE/SUSCEPTIBILITY

5 No specific testing for  
6 relative plant/fruit disease  
7 resistance/susceptibility  
8 has been designed. Under  
9 close observation during  
10 planting, growing, and  
11 harvesting of fruit, under  
12 normal cultural and growing  
13 conditions near Modesto,  
14 California, no particular  
15 plant/fruit disease  
16 resistance or susceptibility  
17 has been observed. Any  
18 variety or selection  
19 observed during indexing of  
20 plant characteristics with  
21 abnormal fungus, bacterial,  
22 virus or insect  
23 susceptibility is destroyed  
24 and eliminated from our  
25 breeding program.

26  
27 The present new variety of peach tree, its flowers,  
28 foliage and fruit herein described may vary in slight detail  
due to climate, soil conditions and cultural practices under  
which the variety may be grown. The present description is  
that of the variety grown under the ecological conditions  
prevailing near Modesto, California.